Table of Contents

Plenary lecture

Computational aspects in multibody system dynamics
W. Schiehlen 569

Combustion problems

Wave instability in combustion
T.J. Chung and W.S. Yoon 583

Adaptive and nonadaptive Hermitian operator methods for combusting phenomena
J.I. Ramos 609

A spectral algorithm for low Mach number combustion
J. Fröhlich and R. Peyret 631

Model of oscillatory phenomena of flame spread along the surface of liquid fuels
C. di Blasi, S. Crescitelli and G. Russo 643

Adaptive methods in computational fluid dynamics of chemically reacting flows
B. Rogg 659

A numerical study of ignition in a premixed flame burner
Y. Song 671

Chemical and vibrational non-equilibrium flowfields
D. Zeitoun 687

Aeroservoelasticity problems

Recent advances in maneuver loads analysis
K. Appa 693

Aeroservoelasticity
H. Zimmermann 719

Nonlinear transient response of stiffened plates to air blast loading by a superelement approach
T.S. Koko and M.D. Olson 737

Real-time control of geometry and stiffness in adaptive structures
A.V. Ramesh, S. Utku and B.K. Wada 761

Computational failure mechanics

Adaptive mesh refinement in strain localization problems
M. Ortiz and J.J. Quigley 781

Localization in a Cosserat continuum under static and dynamic loading conditions
R. de Borst and L.J. Sluys 805

2D finite elements with displacement interpolated embedded localization lines: The analysis of fracture in frictional materials
E.N. Dvorkin and A.P. Assanelli 829

Performance of enhanced finite element formulation in localized failure computation
P. Steinmann and K. Willam 845

Secant structural solution strategies under element constraint for incremental damage
Z. Chen and H.L. Schreyer 869

On well-posedness of BVP in localization problems
Z. Sikora 885

Finite element analysis of bifurcation in nonlocal strain softening solids
G. Pijaudier-Cabot and A. Huerta 905

A stable/neutral equilibrium path for the numerical solution of elastic-plastic softening problems
A. Franchi and F. Genna 921

Computational coupled non-associative thermo-plasticity
M. Kleiber 943

Localization in strain-rate-dependent solids
Y.M. Leroy and O. Chapuis 969

Author index 987

Subject index 989

Instructions to authors 995